

1 **CLAIMS**

2 1. A method comprising:

3 receiving a request for an internal web page from an external browser
4 application;

5 identifying at least one internal link in the internal web page;

6 modifying the at least one internal link such that the internal link is
7 accessible by the external browser application; and

8 communicating the requested web page, including the modified internal
9 link, to the external browser application.

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11 2. A method as recited in claim 1 wherein modifying the at least one
12 internal link includes modifying a portion of a uniform resource locator associated
13 with the at least one internal link.

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15 3. A method as recited in claim 1 wherein modifying the at least one
16 internal link includes modifying a protocol associated with the at least one internal
17 link.

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19 4. A method as recited in claim 1 wherein modifying the at least one
20 internal link includes modifying a port associated with the at least one internal
21 link.

1 5. A method as recited in claim 1 wherein modifying the at least one
2 internal link includes modifying a server name associated with the at least one
3 internal link.

4

5 6. A method as recited in claim 1 wherein the request for an internal
6 web page is received via the Internet.

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8 7. A method as recited in claim 6 wherein the internal web page is
9 stored on a server coupled to an internal network.

10

11 8. A method as recited in claim 1 wherein modifying the at least one
12 internal link includes accessing string mappings from a link translation table and
13 applying the string mappings to the at least one internal link.

14

15 9. A method as recited in claim 1 further comprising:
16 identifying link information contained in the request for an internal web
17 page; and
18 storing the identified link information in a link translation table.

19

20 10. A method as recited in claim 9 further comprising deleting the
21 identified link information from the link translation table after communicating the
22 requested web page to the external browser application.

1 **11.** One or more computer-readable memories containing a computer
2 program that is executable by a processor to perform the method recited in claim
3 1.
4

5 **12.** A method comprising:
6 receiving a request for an internal web page from an external source;
7 identifying link information contained in the request for an internal web
8 page;
9 storing the identified link information in a link translation table;
10 retrieving the internal web page;
11 translating any internal links in the internal web page such that the internal
12 links are accessible by the external source; and
13 communicating the internal web page, including the translated internal
14 links, to the external source.

15
16 **13.** A method as recited in claim 12 wherein translating any internal
17 links in the internal web page includes accessing data contained in the link
18 translation table.

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20 **14.** A method as recited in claim 13 wherein the link translation table
21 includes at least one entry defined by a user.

1 **15.** A method as recited in claim 12 wherein identifying link
2 information contained in the request includes identifying data in a header
3 associated with the request.

4

5 **16.** A method as recited in claim 12 further comprising deleting the
6 identified link information from the link translation table after communicating the
7 internal web page to the external source.

8

9 **17.** A method as recited in claim 12 wherein the request for an internal
10 web page is received via a public network and wherein the internal web page is
11 stored on a server coupled to a private network.

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13 **18.** One or more computer-readable memories containing a computer
14 program that is executable by a processor to perform the method recited in claim
15 12.

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17 **19.** A system comprising:
18 a link translation table; and
19 a translation module coupled to the link translation table, wherein the
20 translation module is to receive a request for an internal web page and to identify
21 any internal links in the requested internal web page, wherein the translation
22 module further modifies any internal links using data contained in the link
23 translation table and generates the requested web page data, including the
24 modified internal links, for communication to a source of the internal web page
25 request.

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2 **20.** A system as recited in claim 19 wherein the system is contained in a
3 firewall, wherein the firewall is coupled between a public network and an internal
4 network associated with the internal web page.
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6 **21.** A system as recited in claim 19 wherein the system is contained
7 within a web server.
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9 **22.** A system as recited in claim 19 further comprising a configuration
10 module coupled to the translation module, wherein the configuration module
11 permits editing of data contained in the link translation table.
12

13 **23.** A system as recited in claim 19 wherein the link translation table
14 contains mappings of portions of links between internal links and external links,
15 wherein internal links are accessible by an internal device coupled to an internal
16 network and external links are accessible by an external device coupled to an
17 external network.
18

19 **24.** A system as recited in claim 19 wherein the link translation table
20 contains at least one user-defined entry and at least one entry generated by the
21 translation module in response to the request for an internal web page.
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23
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1 **25.** One or more computer-readable media having stored thereon a
2 computer program that, when executed by one or more processors, causes the one
3 or more processors to:

4 receive a request for an internal web page via a public network;
5 retrieve the requested internal web page;
6 determine whether the internal web page contains any internal links;
7 if the internal web page contains at least one internal link:
8 modify the at least one internal link such that the internal link is
9 accessible via the public network; and
10 generating data representing the requested internal web page,
11 wherein the generated data includes the modified internal link.

12
13 **26.** One or more computer-readable media as recited in claim 25
14 wherein the request for an internal web page is received via the Internet from a
15 web browser application.

16
17 **27.** One or more computer-readable media as recited in claim 25
18 wherein the at least one internal link is modified by accessing link translation data
19 contained in a link translation table.

20
21 **28.** One or more computer-readable media as recited in claim 25
22 wherein the one or more processors further modify the at least one internal link
23 using information contained in a header associated with the received request for an
24 internal web page.

1 **29.** An apparatus comprising:

2 means for receiving a request for a web page associated with an internal
3 network; and

4 means for translating internal links contained in the web page, wherein the
5 internal links are accessible via the internal network, and wherein the means for
6 translating translates any internal links contained in the web page into external
7 links that are accessible via an external network.

8

9 **30.** An apparatus as recited in claim 29 further comprising means for
10 communicating web page data, including any translated links, to a source of the
11 request for the web page.

12

13 **31.** An apparatus as recited in claim 29 wherein the means for
14 translating translates internal links by modifying a portion of a uniform resource
15 locator associated with the internal links.

16

17 **32.** An apparatus as recited in claim 29 wherein the means for
18 translating translates internal links by replacing a first uniform resource locator
19 associated with the internal links with a second uniform resource locator
20 associated with external versions of the internal links.

21

22 **33.** An apparatus as recited in claim 29 wherein the means for
23 translating translates internal links by replacing a first protocol designator with a
24 second protocol designator.

1 **34.** An apparatus as recited in claim 29 wherein the means for
2 translating translates internal links by replacing a first server name associated with
3 the internal links with a second server name associated with external versions of
4 the internal links.

5

6 **35.** An apparatus as recited in claim 29 further comprising means for
7 storing link translation data, wherein the means for storing link translation data is
8 coupled to the means for translating internal links.

9

10 **36.** An apparatus as recited in claim 35 wherein the means for storing
11 link translation data contains portions of internal links and corresponding portions
12 of external links.

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14 **37.** An apparatus as recited in claim 35 wherein the means for storing
15 link translation data contains internal port numbers and corresponding external
16 port numbers.